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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,128	08/08/2001	Henry C. Yuen	IS/107	5301

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EXAMINER

SHEPARD, JUSTIN E

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/719,128	YUEN ET AL.	
	Examiner	Art Unit	
	Justin E. Shepard	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 30-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities: On page 9, line 6: the words "one" and "channel" should be switched.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30-36 and 41-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Markandey.

Referring to claim 30, Schein discloses a method for displaying television program information comprising (column 2, lines 21-22): storing in memory television program data including a hash portion and a data portion (column 7, lines 52-59); receiving a user request for television programs having a particular search criteria (column 19, lines 22-24); searching the hash portion of the television program data for the search criteria (column 12, lines 5-10); excluding the television program data from a search of the data portion of the television program data if no match of the search criteria is made in the hash portion (Note: by definition of searching a hash function, a limited search is performed of the hash data, and then if results are found another search of the actual data is performed; therefore the search would not be continued if

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the hash search did not net any results); searching the data portion of the television program data for the search criteria if a match of the search criteria is made in the hash portion (Note: by definition of searching a hash function, a limited search is performed of the hash data, and then if results are found another search of the actual data is performed); and transmitting results of the search of the data portion of the television program (column 11, lines 45-46).

Schein does not disclose a method where header data is used in place of hash data.

Markandey discloses a method for transmitting hash values in a header (column 6, lines 20-21).

At the time of the invention it would have been obvious for a person of ordinary skill in the art to send the hash data in a header transmitted with the video data being transmitted. The motivation for doing this would be to perform the hash function on a remote computer with an excess of computing power instead of locally on the subscriber box, which might tax the processor.

Referring to claim 31, Schein discloses a method of claim 30, wherein the data portion includes program information of television programs to be broadcast by a particular channel (column 9, lines 30-34).

Referring to claims 32 and 33, Schein discloses a method of claim 30, wherein the header portion indicates one or more program categories of one or more television programs (column 10, lines 13-14), wherein the one or more program categories are

represented by one or more indexing bits (figure 7B; Note: the index ID is shown as taking up 2 bytes, or 16 bits).

Referring to claims 34 and 35, Schein discloses a method of claim 30, wherein the header portion indicates one or more first letters of one or more television programs (column 10, lines 2-3), wherein the one or more first letters are represented by one or more indexing bits (figure 7A).

Referring to claim 36, Schein discloses a method of claim 30, wherein the search criteria is a program category (column 11, lines 15-20).

Claim 41 recites the same limitations as claim 30 except that claim 41 is an apparatus, where claim 30 is a method. Therefore claim 41 is rejected on the same grounds as claim 30.

Claim 42 recites the same limitations as claim 31 except that claim 42 is an apparatus, where claim 31 is a method. Therefore claim 42 is rejected on the same grounds as claim 31.

Claim 43 recites the same limitations as claim 32 except that claim 43 is an apparatus, where claim 32 is a method. Therefore claim 43 is rejected on the same grounds as claim 32.

Claim 44 recites the same limitations as claim 33 except that claim 44 is an apparatus, where claim 33 is a method. Therefore claim 44 is rejected on the same grounds as claim 33.

Claim 45 recites the same limitations as claim 34 except that claim 45 is an apparatus, where claim 34 is a method. Therefore claim 45 is rejected on the same grounds as claim 34.

Claim 46 recites the same limitations as claim 35 except that claim 46 is an apparatus, where claim 35 is a method. Therefore claim 46 is rejected on the same grounds as claim 35.

Claim 47 recites the same limitations as claim 36 except that claim 47 is an apparatus, where claim 36 is a method. Therefore claim 47 is rejected on the same grounds as claim 36.

Claims 37 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Markandey as applied to claims 30-36 above, and further in view of Noble.

Schein does not disclose a method of claim 30, wherein the search criteria is a first letter of a program title.

Noble discloses a method of claim 30, wherein the search criteria is a first letter of a program title (column 11, lines 6-11).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the method of searching for the first letter of a title to the method disclosed by Schein and Markandey. The motivation for doing this would have been to simplify the hash function by implementing it by stripping the first letter off of the title, therefore simplifying the computation burden of the hash function.

Claim 48 recites the same limitations as claim 37 except that claim 48 is an apparatus, where claim 37 is a method. Therefore claim 48 is rejected on the same grounds as claim 37.

Claims 38-40 and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Markandey as applied to claims 30-36 above, and further in view of Etheredge.

Referring to claim 38, Schein does not disclose a method of claim 30, wherein the storing of the television program data comprises: determining whether the television program data is associated with a predetermined storage criteria; and storing the television program data in a schedule database only if the television program data is associated with a predetermined storage criteria.

Etheredge discloses a method of claim 30, wherein the storing of the television program data comprises: determining whether the television program data is associated with a predetermined storage criteria; and storing the television program data in a schedule database only if the television program data is associated with a predetermined storage criteria (column 8, lines 54-59, 64-66: Note: having a local server only download the information from a "far" server is being interpreted as only downloading the requested data on the client side as the client would not be able to download it if it does not exist on the local server).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to only download the data required as disclosed in Etheredge. The

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motivation for doing this would have been to reduce the amount of data that the search function would need to search through therefore enabling it to search quicker than if it didn't selectively download programming data.

Referring to claim 39, Schein does not disclose a method of claim 38, wherein the predetermined storage criteria is a program category.

Etheredge discloses a method of claim 38, wherein the predetermined storage criteria is a program category (column 11, lines 22-27).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to only download the data required as disclosed in Etheredge. The motivation for doing this would have been to reduce the amount of data that the search function would need to search through therefore enabling it to search quicker than if it didn't selectively download programming data.

Referring to claim 40, Schein does not disclose a method of claim 38, wherein the predetermined storage criteria is a channel that has been enabled.

Etheredge discloses a method of claim 38, wherein the predetermined storage criteria is a channel that has been enabled (column 21, lines 17-21).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to only download the data required as disclosed in Etheredge. The motivation for doing this would have been to reduce the amount of data that the search function would need to search through therefore enabling it to search quicker than if it didn't selectively download programming data.



Claim 49 recites the same limitations as claim 38 except that claim 49 is an apparatus, where claim 38 is a method. Therefore claim 49 is rejected on the same grounds as claim 38.

Claim 50 recites the same limitations as claim 39 except that claim 50 is an apparatus, where claim 39 is a method. Therefore claim 50 is rejected on the same grounds as claim 39.

Claim 51 recites the same limitations as claim 40 except that claim 51 is an apparatus, where claim 40 is a method. Therefore claim 51 is rejected on the same grounds as claim 40.

Claims 52-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Markandey.

Referring to claim 52, Schein discloses an apparatus for displaying television program information comprising (column 2, lines 21-22): a memory storing television program data including a hash portion and a data portion (column 7, lines 52-59); a user input receiving a user-provided search criteria (column 19, lines 22-24); and a processor (figure 3, part 100) coupled to the memory (figure 3, part 102) and the user input (figure 3, part 114), the processor including program instructions for filtering the television program data based on information stored in the hash portion (column 12, lines 5-10), the filter excluding the television program data for a further search if no match is made between the information in the hash portion and the user-provided search criteria (Note: by definition of searching a hash function, a limited search is performed of the hash

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data, and then if results are found another search of the actual data is performed; therefore the search would not be continued if the hash search did not net any results).

Schein does not disclose an apparatus where the header data is used in place of hash data.

Markandey discloses an apparatus that transmits hash values in a header (column 6, lines 20-21).

At the time of the invention it would have been obvious for a person of ordinary skill in the art to send the hash data in a header transmitted with the video data being transmitted. The motivation for doing this would be to perform the hash function on a remote computer with an excess of computing power instead of locally on the subscriber box, which might tax the processor.

Referring to claim 53, Schein discloses an apparatus of claim 52, wherein the data portion includes program information of television programs to be broadcast by a particular channel (column 9, lines 30-34).

Referring to claims 54 and 55, Schein discloses an apparatus of claim 52, wherein the header portion indicates one or more program categories of one or more television programs (column 10, lines 13-14), wherein the one or more program categories are represented by one or more indexing bits (figure 7B; Note: the index ID is shown as taking up 2 bytes, or 16 bits).

Referring to claims 56 and 57, Schein discloses an apparatus of claim 52, wherein the header portion indicates one or more first letters of one or more television

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programs (column 10, lines 2-3), wherein the one or more first letters are represented by one or more indexing bits (figure 7A).

Referring to claim 58, Schein discloses an apparatus of claim 52, wherein the search criteria is a program category (column 11, lines 15-20).

Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Markandey as applied to claims 52-58 above, and further in view of Noble.

Schein does not disclose an apparatus of claim 52, wherein the search criteria is a first letter of a program title.

Noble discloses an apparatus of claim 52, wherein the search criteria is a first letter of a program title (column 11, lines 6-11).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the method of searching for the first letter of a title to the method disclosed by Schein and Markandey. The motivation for doing this would have been to simplify the hash function by implementing it by stripping the first letter off of the title, therefore simplifying the computation burden of the hash function.

Claims 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein in view of Markandey as applied to claims 52-58 above, and further in view of Etheredge.

Referring to claim 60, Schein does not disclose an apparatus of claim 52 further comprising means for determining whether to store the television program data in the memory based on a predetermined storage criteria.

Etheredge discloses an apparatus of claim 52 further comprising means for determining whether to store the television program data in the memory based on a predetermined storage criteria (column 8, lines 54-59, 64-66).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to only download the data required as disclosed in Etheredge. The motivation for doing this would have been to reduce the amount of data that the search function would need to search through therefore enabling it to search quicker than if it didn't selectively download programming data.

Referring to claim 61, Schein does not disclose an apparatus of claim 60, wherein the predetermined storage criteria is a program category.

Etheredge discloses an apparatus of claim 60, wherein the predetermined storage criteria is a program category (column 11, lines 22-27).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to only download the data required as disclosed in Etheredge. The motivation for doing this would have been to reduce the amount of data that the search function would need to search through therefore enabling it to search quicker than if it didn't selectively download programming data.

Referring to claim 62, Schein does not disclose an apparatus of claim 60, wherein the predetermined storage criteria is a channel that has been enabled.

Etheredge discloses an apparatus of claim 60, wherein the predetermined storage criteria is a channel that has been enabled (column 21, lines 17-21).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to only download the data required as disclosed in Etheredge. The motivation for doing this would have been to reduce the amount of data that the search function would need to search through therefore enabling it to search quicker than if it didn't selectively download programming data.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Guhu, U.S. Patent Number 5,897,637 discloses a method for searching for an item located within a file using hashing.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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